REMARKS

Applicants respectfully request consideration of the subject application as amended herein. This Amendment is submitted in response to the Office Action mailed April 24, 2006. Claims 1-13, 29, 36 and 37 have been withdrawn. Claims 30-35 are rejected. In this Amendment, Claim 30 has been amended. No new matter is added by this amendment. A Request for Continuing Examination (RCE) is filed herewith.

Rejections under 35 U.S.C. § 102(b)

The Examiner has rejected claims 30-33 under 35 U.S.C. §102(b) as being anticipated by US Patent 3,967.004 (Oda). As discussed below, Applicants respectfully submit that the currently amended claims 30-33 are patentable over the above reference. Applicants have amended claim 30 to clearly distinguish the pending claims over Oda.

Oda disclosed a method of forming a fiber-reinforced resin. Oda's method includes spraying a mixture that includes (1) a thickening agent dissolved or suspended in a liquid polyester resin and (2) an unsaturated polyester resin composition onto a suitable substrate. The substrate in Oda did not include any individual receptor region (or opening) as taught by Applicant's invention and that each one of the functional element is designed to mate with one individual receptor region that is an opening and that is shape complimentary to an element to fall into the region and be deposited therein. The functional element in Applicant's invention is thus shaped so that it can fit or mate complimentarily to an opening. The Examiner compared the entire substrate in Oda to a receptor region as recited in claims 30-33 and opined that the entire substrate acts as the receptor region. If that is the case, all of the particles in the mixture (1) and (2) are dispensed onto the one area, and one receptor

individual element in the mixture (1) and (2) are NOT designed to mate with one receptor region.

To designed to mate with one receptor region (e.g., opening) provided on the substrate, Applicant's Specification taught that the element has a complimentary shape so that the element can self assemble into the receptor region, for instance, by controlling the fit between the element and the opening (the receptor region), it is possible to have the elements self assemble into the openings. There is no such self assembly into any opening or receptor region on the substrate in Oda.

Furthermore, the plurality of elements recited in claims 30-33 required that each comprises a functional element, for example, an active circuitry. The particles in the mixture in Oda do not possess such functional element characteristic.

Additionally, Oda did not teach projecting a second fluid through a nozzle toward the substrate as recited in claims 30-33.

Therefore, Applicant respectfully submits that Oda did not teach each and every element of amended claims 30-33.

Accordingly, Applicants respectfully submit that the subject rejections be withdrawn.

Claims 30-32, 34 and 35 are also rejected under 35 U.S.C. §102(b) as being anticipated by US Patent 4,397,325 (Van Roeyen). As discussed below, Applicants respectfully submit that the pending claims 30-32, 34 and 35 are patentable over the above reference. Applicants have amended claim 30 to clearly distinguish the pending claims over Van Roeyen.

Van Roeyen disclosed a method of forming, coating, drying, and treating a plurality of nails. Fiugres 6A-6B of Van Roeyen disclosed a process of forming nails, coating, drying,

and treating the nails. The nails are formed in files from a strip 25 using a stamping method. A strip 25 having a plurality of nails projecting therefrom is then subjected to successive steps of cleaning, coating, and drying. For example, the nails (blanks 28) are immesersed in a tank 29 filled with a washing solution. Then, the nails are sprayed with a coating solution such as a slurry 31. Several cleaning, drying, and coating steps also occur to finally form the nails shown in Figure 6B.

Van Roeyen did not teach a slurry having a plurality of elements each of which comprising a functional element, and dispensing such slurry onto a substrate provided with receptor region openings and that each of the element is designed to mate with a receptor region opening complimentary in shape to the element.

To designed to mate with one receptor region (e.g., opening) provided on the substrate, Applicant's Specification taught that the element has a complimentary shape so that the element can self assemble into the receptor region, for instance, by controlling the fit between the element and the opening (the receptor region), it is possible to have the elements self assemble into the openings. There is no such mating of functional element into any opening or receptor region on the substrate in Van Roeyen.

Furthermore, the plurality of elements recited in claims 30-33 and 34-35 required that each comprises a functional element, for example, an active circuitry. The nails in Van Roeyen do not possess such functional element characteristic.

Additionally, Van Roeyen did not teach projecting a second fluid through a nozzle toward the substrate as recited in claims 30-33 and 34-35.

Therefore, Applicant respectfully submits that Van Roeyen did not teach each and every element of the amended claims 30-33 and 34-35.

Accordingly, Applicant respectfully submit that the subject rejections be withdrawn.

Rejections under 35 U.S.C. § 103(a)

Claims 34 and 35 are rejected under 35 U.S.C. §103(a) as being unpatentable over Van Roeyen in view of U.S Patent 5,167,989 (Dudek). As discussed below, Applicants respectfully submit that the pending claims 34 and 35 are patentable over the above combined reference.

For the same reasons as discussed above, even if Dudek taught the art of attaching a particulate coating material to a substrate wherein the excess particles are removed by wiping, blowing with a gas, Dudek could not be combined with Van Roeyen to get the elements claimed in claims 34-35.

Therefore, Applicant respectfully submits that Van Roeyen and Dudek did not make obvious claims 34-35.

Therefore, it would have not been obvious from the teaching of Van Roye and Dudek to provide suggestion, motivation, or teaching of the elements of claims 34 and 35. Accordingly, Applicants respectfully submit that the subject rejections be withdrawn.

Claims 30, 31, and 33 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S Patent 5,545,291 (Smith), view of U.S Patent 5,403,624 (DiMaio). As discussed below, Applicants respectfully submit that the pending claims 30, 31, and 33 are patentable over the above combined reference.

Smith disclosed a method of fluidic self assembly that includes dispensing a slurry comprising elements onto a substrate. Smith lacked projecting a second fluid through a nozzle toward the substrate. The Examiner believed that DiMaio taught projecting a second

fluid through a nozzle toward a substrate and as such can be combined with Smith to get the elements of claims 30, 31, and 33. Applicant respectfully disagrees.

DiMaio pertained to a method of applying a coating to fasteners using a spray nozzle that is particularly effective with power coatings. DiMaio also taught that a plurality of spary nozzles can be used to provide more uniform coating with an increased production rate. DiMaio thus aimed at more coverage for coating the fasteners. DiMaio did not teach dispensing of the second fluid using a nozzle after the plurality of elements are dispensed in a first fluid to the substrate as recited in the claims. Combining DiMaio's plan of multiple nozzles for coating fasteners would have not disclosed or suggested the application of a second fluid through a nozzle after the first fluid, first slurry, is dispensed over the substrate.

Applicants' claimed invention as recited in claims 30, 31, and 33, provide a method of applying a second fluid through a nozzle toward the substrate in addition to the dispensing the slurry comprising the elements over the substrate. Smith did not teach, suggest, or motivate the need for a second fluid to be dispensed by a nozzle. There would have been no motivation or suggestion to combine DiMaio to Smith. One of ordinary skill in the art would have not combined DiMaio and Smith to obtained the elements as recited in claim 30.

Furthermore, both DiMaio and Smith did not teach projecting a second fluid in addition to dispensing the first fluid that has the elements. Therefore, there would have been no motivation or suggestion to combine Smith and DiMaio to get the element of claim 31, where the first fluid and said second fluid comprise the same solvent. Even if the first fluid and the second fluid are the same solvent, DiMaio combined to Smith did not cure the lack of projecting a second fluid in combination with dispensing a first fluid that has the elements. Additionally, even if the first fluid is dispensed and the second fluid is projected at the same time, as recited in claim 33, "wherein said second fluid is projected toward said substrate

while said plurality of elements mates with receptor regions," DiMaio and Smith could not be combined to get the limitations.

Therefore, Applicant respectfully submits that Smith and DiMaio did not make obvious claims 30, 31, and 33 in their currently amended forms.

Therefore, it would have not been obvious from the teaching of Smith and DiMaio to provide suggestion, motivation, or teaching of the elements of claims 30, 31, and 33. Accordingly, Applicants respectfully submit that the subject rejections be withdrawn.

CONCLUSION

Applicants respectfully submit that in view of the amendments and arguments set forth herein, the rejections herein have been overcome. Accordingly, it is believed that all claims now pending patentably define the subject invention over the prior art of record and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner determines the prompt allowance of these claims could be facilitated by a telephone conference, the Examiner is invited to contact Mimi Dao at (408) 720-8300.

Deposit Account Authorization

Authorization is hereby given to charge our Deposit Account No. 02-2666 for any charges that may be due.

Pursuant to 37 C.F.R. 1.136(a)(3), applicant(s) hereby request and authorize the U.S. Patent and Trademark Office to (1) treat any concurrent or future reply that requires a petition for extension of time as incorporating a petition for extension of time for the appropriate length of time and (2) charge all required fees, including extension of time fees and fees under 37 C.F.R. 1.16 and 1.17, to Deposit Account No. 02-2666.

Respectfully submitted,

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